

4. Isolated houses are safer from strokes of lightning when properly protected by lightning rods. The great difficulty is to tell what is a proper protection from lightning.

5. So far as concerns fire due to lightning, the stone house and the slate roof are far preferable to the wooden house and the shingle roof. Metal roofs and rain spouts may be still better. The country proverbs as to the lightning singling out certain kinds of trees are based upon an insufficient number of observations. All available statistics that have been gathered show that no one kind of tree has a greater immunity than any other. When a lightning flash passes from the cloud to the earth, the conductivity of the soil and the strata below it have decided in general where the flash will strike. The characteristics of the soil and its water contents also decide what trees will best grow there. The difference in conductivity of various kinds of wood is not so important as the height and size of the tree, and the prominence of its location and the wetting of its trunk by rain.

6. The northern lights frequently appear in advance of a storm, but still more frequently after it, and have no real value in forecasting the occurrence of storms.

THE BAGUIOS OF THE PHILIPPINES.

In the translation of an article by Dr. Bergholz, which was published on page 402 of the September REVIEW, we have used the words "hurricane" and "typhoon" as synonymous, but strict adherence to the rules that the Editor has often defended would require that we either use the word "cyclone" uniformly for all revolving storms, or else use the names that have a widespread local usage. It is generally recognized that the word "hurricane" should, at least in English works, be restricted to the violent storms of the Atlantic, as it has its root in the Carib word "ourgan," from which the French have derived their "ouragan," the Germans their "orkan," and the Spanish their "huracan." The word "typhoon" has for unknown ages been applied to the revolving storms of the Indian Ocean and the China Sea.

The famous work by Algué, *Baguios ó Cyclones Filipinos*, brings to our attention the name that is universally applied in the Philippine Archipelago to the storms that, after they pass westward over the Archipelago, become typhoons on the coast of China. As to the origin and pronunciation of this word, Prof. Dean C. Worcester, the well-known authority of the Philippine Islands, writes as follows:

I can not tell you to what dialect the word "baguio" belongs. It is certainly the word used for typhoon by both the Tagalogs and the Viscayans, and I fancy it is of Malay origin, but that is a guess pure and simple.

As to the pronunciation, the "a" is as in barn; the "gui" is precisely equivalent to the "gi" in the "git" of our New England dialect; and the "o" is as in our "oh." The accent falls on the first syllable.

THE BEN NEVIS OBSERVATORY.

We condense the following items from an article in a recent St. Louis newspaper. Ben Nevis is located about 60 miles north-northwest of Glasgow, Scotland, and its altitude is given as 4,133 feet. For many years past two stations have been maintained, one at the summit, the other near the base, under the auspices of the Scottish Meteorological Society, which has secured the necessary voluntary contributions and an annual allowance from the government funds, as administered by the British Association for the Advancement of Science. During the first year of its existence the observations were made daily by Mr. Clement Wragge, now the Director of the Meteorological System of Queensland, Australia. In his day there was no residence for the observer at the sum-

mit, and he made a daily trip from the lower station to the upper and return on foot. At the present time a movement is being started to have the Ben Nevis observatories accepted as a government institution. Their usefulness for the scientific study of meteorological problems is universally recognized, but the value of the records from the upper station for use in weather forecasting are still to be demonstrated. It is one of the few localities where hourly observations are made simultaneously at both a high and a low station in order to deduce the average density of the intermediate air.

The summit of the mountain is always wreathed in snow, and perpetual fog overhangs the observatory. When the observer starts out for his first observation he takes with him an empty rain gage; this is changed for the one that has been out during the previous hour, which is covered up and taken back to the observatory. Having climbed by a ladder to the roof of the observatory, the observer faces the wind as squarely as possible, after which he records its apparent direction and velocity for comparison with the records of the self register. The quantity, kind, and direction of the clouds on all sides are then recorded, as also the presence and extent of the mist or fog. If the mist is absent, the observer may have an inspiring view of Scottish scenery. After returning to a lower story of the observatory tower, he, by means of John Aitken's dust counter, records exactly the number of dust particles in a cubic centimeter of air; he then descends to the office and measures the rain or melted snow. The observations are all recorded on slips of paper and afterwards copied on the daily sheets which contain the twenty-four hourly observations. In the winter time the thermometer screens, the rain gage, and other apparatus have to be kept clean of drifted snow, or dug out of the snow drifts, and often taken to the house to be thawed out, in which latter case a new set of thermometers is temporarily set up in the shelter.

THE SEVENTH INTERNATIONAL GEOGRAPHICAL CONGRESS.

This Congress sat in Berlin from September 28 to October 4, and was preceded and followed by a series of geographical excursions to different parts of Europe. Among the resolutions adopted by it are the following, which have a special interest for meteorologists, (see *Nature*, October 26, 1899, p. 633):

2. The Congress believes that the plans for international cooperation in Antarctic exploration form an excellent basis for joint research in physical geography, geology, geodesy, and biology. With regard to meteorological and magnetic work, however, it appoints an international committee to determine the general scheme and methods to be employed on the expeditions, and to endeavor to organize a system of simultaneous observations in the regions surrounding, but exterior to, the Antarctic.

3. The Congress expresses the earnest desire that all maps, including those published in countries using English and Russian measures, should, in addition to the graphic scale, bear the proportion of lengths on the map to those in nature in the usual form 1:*a*.

6. The Congress expresses the hope that in scientific publications the centigrade thermometer scale will, as far as possible, be employed; or, at least, the values in centigrade degrees be added to those expressed on the scales of Fahrenheit or Réaumur.

10. The Congress considers the collection of data as to the distribution of floating ice to be very important, and appeals to the hydrographic and meteorological institutes of the countries whose ships frequent high latitudes to induce the masters of vessels to keep a regular record of the occurrence of drifting ice. The Congress believes that the Danish Meteorological Institute in Copenhagen is the best adapted as an international center for collecting the records.

11. The Congress nominates an international committee to consider the nomenclature of the floor of the ocean, and to produce and publish at latest in time for the next Congress a chart of the ocean with revised nomenclature.

12. The Congress hopes that the names of oceanic islands, especially in the Pacific, will be revised with a view to ascertaining and preserving the native names. Where no native names exist or can be ascer-

tained, the names given by the discoverers should be used. The arbitrary changing of established names ought to be opposed by every means.

15. The Congress is favorable to the foundation of an international seismological society, and appoints an international committee for the study of earthquakes.

THE WEATHER REVIEW AND THE HIGH SCHOOLS.

During the past year the Chief of the Weather Bureau has received an unusually large number of requests for copies of the MONTHLY WEATHER REVIEW and other publications of the Bureau; so many, in fact, that it has become difficult, if not impossible, to accede to them all. One can but suspect that the great stimulus given to the study of meteorology by the widespread introduction into progressive high schools of the beautiful works on physical geography by Davis, Tarr, and others has led to this increased demand upon the resources of the Weather Bureau.

Professor Moore is very desirous of encouraging the study of our science, and is quite willing to respond to requests for publications whenever practicable; but, as the editions are soon exhausted, he takes the liberty of suggesting that voluntary observers and, indeed, all who have received copies of the MONTHLY WEATHER REVIEW, or any other publication of the Bureau, will do him a favor if, after using such public documents, they will kindly deposit them in the library of some college or high school, or in some public library, where they may be accessible to others. Those who prefer may, of course, return them to the Weather Bureau by mail, for which purpose penalty envelope will be provided.

It often happens that a school or teacher, or other applicant for the MONTHLY WEATHER REVIEW, is in the same town where a voluntary observer also lives. Now, the edition of the MONTHLY WEATHER REVIEW already approaches the limit imposed by our annual appropriation for printing, so that requests for copies are often necessarily refused. In many such cases the local voluntary observer may be glad to put his set of the publications of the Weather Bureau at the disposal of the teachers and schools. If the teachers would also call upon him for popular talks to their scholars on the art of observing and the results of his local observations, he could doubtless give them such a talk on local weather lore as would prove highly instructive. A visit by the school to the voluntary station and a personal inspection of the thermometers and the rain gage would be an object lesson of permanent value to the youth. The regular Weather Bureau stations, whose records appear in Table I of the MONTHLY WEATHER REVIEW, are always ready for such visits, and the observers will, we are sure, always be glad to do what they can to explain our work to the scholars and teachers.

SAVE YOUR SETS OF MONTHLY WEATHER REVIEWS.

In the monthly section reports mention is frequently made of deaths or other changes among the voluntary observers. In such cases the thermometers and the rain gages are sometimes forwarded to the section center, for use by other observers; sometimes they are transferred to a successor in the same town; but what becomes of the files of MONTHLY WEATHER REVIEWS? These are greatly in demand by schools and colleges, and should be carefully preserved. Unfortunately the Weather Bureau can not undertake to call them in and return bound volumes in exchange, or it certainly

would do this in order to insure their preservation. But any observer who has a mind to keep the REVIEWS in good condition can do so by tying them up between two squares of thick pasteboard.

We hope that the section directors and voluntary observers will cooperate in preserving the REVIEWS and transferring them to those who will preserve and use them. Penalty envelopes can be supplied when the REVIEWS are to be sent by mail from place to place.

BACK NUMBERS OF THE MONTHLY WEATHER REVIEW.

In continuation of the notices on page 109 of the MONTHLY WEATHER REVIEW for March we add the following:

Mr. W. J. Gull, voluntary observer at Cedonia (formerly Hunters), Stevens County, Washington (latitude, $48^{\circ} 10' N.$; longitude, $118^{\circ} 3' W.$; altitude, 4,000 feet), states that he is willing to consider any proposition from a responsible library, college or scientific institution looking to the deposit with it of his set of MONTHLY WEATHER REVIEWS, and possibly also his original records as voluntary observer. It is, of course, preferable that this data should be preserved somewhere within the State of Washington and most appropriately at the county seat. Cedonia is an interesting station, not only on account of its altitude, but because of its location in the valley of the Columbia River on the western slope of a range of hills known as Summit Mines. The county seat, Colville, is on the Colville River and located about 30 miles distant to the north-northeast. The county is rich in mining and agricultural resources, it occupies the northeast corner of the State of Washington and the climatology of this region is eminently worth of special study. The snowfall at Hunters has usually been one of the heaviest on record within that State, whereas the total annual rainfall is comparatively small; this contrast is undoubtedly due to the altitude of the station, 4,000 feet, which is the highest in the State. Cedonia is within the region of specially high precipitation in the western part of the State.

Any institution desiring Mr. Gull's set should correspond directly with him.

Mr. Barry C. Hawkins, Highlands, Macon, N. C., states that he has come into possession of a number of copies of the MONTHLY WEATHER REVIEW for May, June, July, December, 1882; all of 1883; all, except July, of 1884; the Annual Reports of the Chief Signal Officer, for 1880, 1881, 1882, which he offers to exchange for other works on meteorology, especially Greeley's American Weather, Waldo's Elementary Meteorology, or Russell's Weather and Forecasting.

Dr. Paul Bergholz, Director of the Meteorological Observatory, Bremen, Germany, desires the following volumes and numbers in order to complete his set: 1873-1882, entire; 1883-1891, entire; 1892, August, September, November, December, and the Annual Summary; 1894 April and November; 1896, May; 1897, January.

The Library of the National Astronomical Observatory at Tacubaya, Mexico, desires the MONTHLY WEATHER REVIEW for November, 1891, in order to complete its set.

All those who are willing to deposit their sets of the REVIEW and other publications with the Weather Bureau for use in completing the sets that are preserved in colleges and libraries are requested to do so.